

## Participants of Undergraduate Research Fellowship (URFP) Programme

### 2025-26

| Name                      | Curriculum    | Year | Project Title of Project/ Directed Studies Course                                                                                    | Supervisor of Project/ Directed Studies Course                                 | Project Title of Summer Research Internship                                                                                                       | Internship Supervisor                                                          |
|---------------------------|---------------|------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Brandon Julio Hadisaputro | BSc           | 4    | Identification of Tumor Metastasis-Inducing Genes in Ovarian Cancer Using Metagenomics                                               | Prof Wong Alice Sze Tsai, School of Biological Sciences                        | The Global Burden of High-BMI in Female Cancers (1990–2050) and Transcriptomic Signatures of Adipocyte-Tumor Crosstalk in Advanced Ovarian Cancer | Prof Wong Alice Sze Tsai, School of Biological Sciences                        |
| Ke Wenjun                 | BSc           | 4    | Generation, Detection, and Applications of Bright Squeezed Vacuum                                                                    | Prof Yang Yi, Department of Physics                                            | Fast, Nondestructive Readout on a Neutral Atom Quantum Information Processor via Squeezed Light                                                   | Dr Harry Levine, Department of Physics, University of California, Berkeley     |
| Liu Zhonglin              | BSc           | 4    | From Inference to Intelligent Control: Applications of Probabilistic Boolean Networks in Systems Biology                             | Prof Ching Wai Ki, Department of Mathematics                                   | Probabilistic Boolean Networks (PBNs) and Their Applications                                                                                      | Prof Zhang Louxin, Department of Mathematics, National University of Singapore |
| Lyu Xinke                 | BSc           | 4    | Sliced Wasserstein Distance for Scalable Bidirectional DeepParticle Methods                                                          | Prof Zhang Zhiwen, Department of Mathematics                                   | --                                                                                                                                                | --                                                                             |
| Qiu Jiongcn               | BSc           | 4    | Spectral Sequence and Hyperderived Functors                                                                                          | Prof Chan Kei Yuen, Department of Mathematics                                  | --                                                                                                                                                | --                                                                             |
| Tsang Hin Lam             | BSc&MRes      | 4    | Identifying Microbial Metabolites that Suppress Neurodegeneration in <i>C. elegans</i>                                               | Prof Zheng Chaogu, School of Biological Sciences                               | --                                                                                                                                                | --                                                                             |
| Wan Yuheng                | BSc           | 3    | The Evolution of Hodge Structures: Mixedness, Variations, and Saito's Formalism                                                      | Prof Mok Ngaiming, Department of Mathematics                                   | Line Bundles, Jacobians, and Moduli of Abelian Varieties                                                                                          | Prof Mok Ngaiming, Department of Mathematics                                   |
| Xuan Jiayi                | BSc(ActuarSc) | 3    | Kernel Estimation of Conditional Average Treatment Effect, and is Modified by Data Sharpening Method                                 | Prof Lee Stephen Man Sing, SCDS (Department of Statistics & Actuarial Science) | --                                                                                                                                                | --                                                                             |
| Yang Ian Stanley Ang      | BSc           | 4    | Forensic Kinship Analysis Using Bioinformatics on Low-Quality DNA Sequencing Data of <i>Aquilaria sinensis</i>                       | Prof Merilä Juha, School of Biological Sciences                                | --                                                                                                                                                | --                                                                             |
| Zhu Zi                    | BSc           | 4    | 3D Numerical Constraints on the Development of Crustal-Scale Ductile Shear Zones and Implications on Neoproterozoic Tectonic Regimes | Prof Zhang Jian, Department of Earth & Planetary Sciences                      | --                                                                                                                                                | --                                                                             |

### 2024-25

| Name                  | Curriculum        | Year | Project Title of Project/ Directed Studies Course                                                           | Supervisor of Project/ Directed Studies Course                                                       | Project Title of Summer Research Internship                                                  | Internship Supervisor                                                    |
|-----------------------|-------------------|------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Chiu Ka Long          | BSc(ActuarSc) (4) | 3    | Dependence structures in multiple life insurances and annuities                                             | Prof K C Cheung, SCDS (Department of Statistics & Actuarial Science)                                 | Peer-to-peer risk-sharing schemes with heterogeneity and infinite-mean losses                | Prof Boonen Tim J, SCDS (Department of Statistics and Actuarial Science) |
| Fong Eugenia King Hin | BSc (4)           | 4    | The Biological Significance of The AVM Pathway in <i>C. Elegans</i>                                         | Prof Chaogu Zheng, School of Biological Sciences                                                     | --                                                                                           | --                                                                       |
| Ho Sin Yiu            | BSc (4)           | 4    | Identification of Protective Factors in Oculomotor Neurons Conferring Resistance to Spinal Muscular Atrophy | Prof Martin C H Cheung, School of Biomedical Sciences                                                | --                                                                                           | --                                                                       |
| Liu Jinhui            | BSc (4)           | 3    | Evaluating the potential of absolute abundance in human gut microbiome studies                              | Prof Joshua W K Ho & Prof Alan S L Wong, School of Biomedical Sciences                               | Characterization of The Structural Variants in the Human Vaginal Microbiome during Pregnancy | Prof Tal Korem, Department of Systems Biology, Columbia University       |
| Or King Long          | BSc (4)           | 4    | Asymmetric Transformation of Active Methylene Compounds                                                     | Prof Zhongxing Huang, Department of Chemistry                                                        | --                                                                                           | --                                                                       |
| Wong Chi Lok*#        | BSc (4)           | 4    | Revealing SNAI2 as a Pseudo-Primed Substrate of GSK3                                                        | Prof Martin C H Cheung, School of Biomedical Sciences                                                | Revealing SNAI2 as a Pseudo-Priming Substrate of GSK3                                        | Prof Martin C H Cheung, School of Biomedical Sciences                    |
| Wong Chung Hin*       | BSc (4)           | 4    | Pathogenesis of Emerging Respiratory Viruses using Transcriptomics                                          | Prof Chi Wai Michael Chan, School of Public Health                                                   | Pathogenesis of Emerging Respiratory Viruses using Transcriptomics                           | Prof Chi Wai Michael Chan, School of Public Health                       |
| Wong On Ki            | BSc&MRes (4)      | 4    | A Phylogenetic Investigation of the Emergence of Coronavirus Variants of Concern                            | Prof Tommy Tsan Yuk Lam, School of Public Health & Prof Simon Y W Sin, School of Biological Sciences | --                                                                                           | --                                                                       |

**2023-24**

| Name               | Curriculum          | Year | Project Title of Project/ Directed Studies Course                                                                                                             | Supervisor of Project/ Directed Studies Course               | Project Title of Summer Research Internship                                                                                                                   | Internship Supervisor                                        |
|--------------------|---------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Chan Chun Lai*     | BSc (4)             | 4    | Tumor immune microenvironment (TIME) is associated with the survival outcome and progression in triple negative breast cancer                                 | Prof Rio Ryohichi Sugimura, School of Biomedical Sciences    | --                                                                                                                                                            | --                                                           |
| Choi Hin Hang      | BSc (4)             | 4    | Investigating the impact of alternative splicing in sleep regulation of <i>C. elegans</i>                                                                     | Prof Chaogu Zheng, School of Biological Sciences             | --                                                                                                                                                            | --                                                           |
| Leung Chi Ho       | BSc (4)             | 4    | Effect of stream water quality on the thermal tolerance of freshwater dwarf shrimp <i>Caridina cantonensis</i>                                                | Prof Timothy C Bonebrake, School of Biological Sciences      | --                                                                                                                                                            | --                                                           |
| Leung Ho Chi       | BSc (4)             | 4    | Desymmetric Synthesis of 4,4'-Bis(oxazoline) Ligands and Their Applications                                                                                   | Prof Zhongxing Huang, Department of Chemistry                | --                                                                                                                                                            | --                                                           |
| Leung Sin Ying     | BSc (4)             | 4    | Study of the effect of H3K79me2-Menin interaction on the regulation of alternative splicing                                                                   | Prof Jason Wing Hon Wong, School of Biomedical Sciences      | Study of the Interaction between H3K79me2 and Menin through Integrated Analysis of ChIP-seq and RNA-seq                                                       | Prof Jason Wing Hon Wong, School of Biomedical Sciences      |
| Li Kau Chun        | BSc (4)             | 4    | Drug Target Identification via Energy Transfer                                                                                                                | Prof Chi Ming Che, Department of Chemistry                   | --                                                                                                                                                            | --                                                           |
| Li Wai Lam Verna   | BSc (4)             | 4    | Study of how GEN1 endonuclease limits cGAS activation and suppresses innate immune response                                                                   | Prof Gary Y W Chan, School of Biological Sciences            | --                                                                                                                                                            | --                                                           |
| Lu Yudi            | BSc (4)             | 3    | Target Identification of Traditional Chinese Medicine                                                                                                         | Prof Xiaoyu Li, Department of Chemistry                      | Target Identification of Traditional Chinese Medicine                                                                                                         | Prof Xiaoyu Li, Department of Chemistry                      |
| Luo Yongqi         | BSc (4)             | 4    | Elucidating the Interplay Between Macrophages and Brain Microvascular Endothelial Cells During Systemic Inflammation                                          | Prof Raymond C C Chang, School of Biomedical Sciences        | --                                                                                                                                                            | --                                                           |
| Mok Yun Kam        | BSc (4)             | 4    | Atroposelective Synthesis of Axially Chiral Biaryl Aldehydes via Reductive Desymmetrization                                                                   | Prof Zhongxing Huang, Department of Chemistry                | Atroposelective Synthesis of Axially Chiral Biaryl Compounds                                                                                                  | Prof Zhongxing Huang, Department of Chemistry                |
| Wong Ho Cheong     | BSc (4)             | 4    | Offshore Buried Paleochannels and Their Influences on Groundwater and Seawater Exchange in the Pearl River Estuary                                            | Prof Jimmy Jiujiu Jiao, Department of Earth Sciences         | Offshore Buried Paleochannels and Their Influences on Groundwater and Seawater Exchange in the Pearl River Estuary                                            | Prof Jimmy Jiujiu Jiao, Department of Earth Sciences         |
| Wu Jiaxin          | BASc(AppliedAI) (4) | 4    | Uncertainty estimation of large language models in medical question answering                                                                                 | Prof Yizhou Yu, Department of Computer Science               | --                                                                                                                                                            | --                                                           |
| Xiao Ziyang*       | BASc(AppliedAI) (4) | 4    | Multi-Modal Representation Learning and its Application in Healthcare: Applying Deep Residual Shrinkage Network in Detecting Sleep Apnea Based on BCG signals | Prof Lequan Yu, Department of Statistics & Actuarial Science | Multi-Modal Representation Learning and its Application in Healthcare: Applying Deep Residual Shrinkage Network in Detecting Sleep Apnea Based on BCG signals | Prof Lequan Yu, Department of Statistics & Actuarial Science |
| Xue Luhao          | BSc (4)             | 4    | Galerkin Proper Orthogonal Decomposition Method for Differential Equations                                                                                    | Prof Zhiwen Zhang, Department of Mathematics                 | Deep particle method and invariant measures for stochastic dynamic systems                                                                                    | Prof Zhiwen Zhang, Department of Mathematics                 |
| Yee Pak On Patrick | BSc (4)             | 4    | Effects of DNMT3a and taVNS regulation in middle-aged animal model                                                                                            | Prof Man Lung Fung, School of Biomedical Sciences            | --                                                                                                                                                            | --                                                           |
| Zhang Xinyuan      | BSc (4)             | 4    | From Fisher to K-FAC: Navigating Optimization in Foundation Models                                                                                            | Prof. Xiaoming Yuan, Department of Mathematics               | --                                                                                                                                                            | --                                                           |
| Zhou Polly         | BSc (4)             | 4    | TME Lego: Assembloids Modeling the Solid Tumour Microenvironment                                                                                              | Prof Rio Ryohichi Sugimura, School of Biomedical Sciences    | --                                                                                                                                                            | --                                                           |

**2022-23**

| Name                   | Curriculum | Year | Project Title of Project/ Directed Studies Course                                                                              | Supervisor of Project/ Directed Studies Course       | Project Title of Summer Research Internship                                                     | Internship Supervisor                                |
|------------------------|------------|------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------|
| Chan Xiao Jun*         | BSc (4)    | 4    | Applying machine learning algorithms to enhance wildfire prediction in Alaska                                                  | Dr Jin Wu, School of Biological Sciences             | --                                                                                              | --                                                   |
| Chow Cheuk Ying Tweety | BSc (4)    | 4    | Modeling pathogenesis of craniofacial disorders using patient-specific urine-derived stem cells                                | Dr. Martin C H Cheung, School of Biomedical Sciences | Modeling pathogenesis of craniofacial disorders using patient-specific urine-derived stem cells | Dr. Martin C H Cheung, School of Biomedical Sciences |
| Djan Matthew           | BSc (4)    | 4    | Development and characterization of ID8 Trp53-/- cell line for improved murine model of HGSOc under ascitic fluid shear stress | Prof Alice S T Wong, School of Biological Sciences   | --                                                                                              | --                                                   |

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|-------------------|-------------------|---|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Kang Liang        | BSc (4)           | 4 | Investigating the Structural Basis of Human Chromosome Replication and Epigenetic Inheritance by Using Cryo-EM  | Dr Yuanliang Zhai, School of Biological Sciences           | Investigating the Structural Basis of Nucleosome Assembly Using Cryo-EM | Prof Eva Nogales, Department of Molecular and Cell Biology, University of California Berkeley |
| Lin Yen Hsu       | BSc (4)           | 4 | Design and Synthesis of Gold(I) Complexes with Thiophene-Based Alkynyl Ligands and Their Supramolecular Studies | Prof Vivian W W Yam, Department of Chemistry               | --                                                                      | --                                                                                            |
| Liu Yiming        | BSc (4)           | 4 | Apply a new approach to cluster algebra                                                                         | Prof Jianghua Lu, Department of Mathematics                | --                                                                      | --                                                                                            |
| Pang Wing Kwan*   | BSc(ActuarSc) (4) | 4 | Multi-task machine learning for joint diagnosis and prognosis of human cancers                                  | Dr Lequan Yu, Department of Statistics & Actuarial Science | Dependence models in life contingencies                                 | Prof K. C. Cheung, Department of Statistics & Actuarial Science                               |
| Wong Clara Shania | BSc (4)           | 4 | Unbiased Selection of DNA-Encoded Libraries on Live Cells                                                       | Prof Xiaoyu Li, Department of Chemistry                    | --                                                                      | --                                                                                            |
| Yun Ze            | BSc (4)           | 4 | Finiteness of Mordell-Weil Groups of Elliptic Modular Surfaces                                                  | Prof Ngaiming Mok, Department of Mathematics               | --                                                                      | --                                                                                            |
| Zhang Hongzhuo    | BSc (4)           | 4 | Investigating Measles Virus DI-RNA as a Potential Vaccine Adjuvant                                              | Prof Dong-Yan Jin, School of Biomedical Sciences           | Investigating Measles Virus DI-RNA as a Potential Vaccine Adjuvant      | Prof Dong-Yan Jin, School of Biomedical Sciences                                              |

## 2021-22

| Name                | Curriculum        | Year | Project Title of Project/ Directed Studies Course                                                             | Supervisor of Project/ Directed Studies Course                                                  | Project Title of Summer Research Internship                                                                            | Internship Supervisor                                         |
|---------------------|-------------------|------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| Cham Ki Ki          | BSc (4)           | 4    | Role of Parkin E3 ubiquitin ligase on Influenza A virus protein PB1-F2-mediated innate immune signaling       | Prof Dong-Yan Jin, School of Biomedical Sciences                                                | --                                                                                                                     | --                                                            |
| Chan Chin Tung      | BSc (4)           | 4    | Adaptations of Desmos chinensis (Annonaceae) fruits for independent dispersal of seeds                        | Prof Richard Saunders, School of Biological Sciences                                            | --                                                                                                                     | --                                                            |
| Chan Ching Si       | BSc (4)           | 4    | Understanding the physiological, behavioral and molecular effects of antidepressant drugs on marine organisms | Dr Juan Diego Gaitán-Espitia, School of Biological Sciences                                     | --                                                                                                                     | --                                                            |
| Chan Pak Hop        | BSc(ActuarSc) (4) | 3    | Limiting Properties of ERD'O S-RÉNYI Graphs                                                                   | Prof Jeff J Yao, Department of Statistics & Actuarial Science                                   | Limiting properties of Erdős-Rényi graphs                                                                              | Prof Jeff J Yao, Department of Statistics & Actuarial Science |
| Garg Anahita        | BSc (4)           | 4    | Potential roles and interaction of antioxidants and omega fats in plants and humans                           | Dr Jetty C Y Lee & Dr Olivier Habimana, School of Biological Sciences                           | --                                                                                                                     | --                                                            |
| Karim Kazi Neha     | BSc (4)           | 4    | Molecular cloning, tissue distribution and functional studies of phoenixin in fish model                      | Prof Anderson O L Wong, School of Biological Sciences                                           | --                                                                                                                     | --                                                            |
| Li Lok Ka           | BSc (4)           | 4    | Relationship between AMPK-dependent BDNF pathway and KLF15 on fatty acid oxidation in skeletal muscle         | Dr Chi Bun Chan, School of Biological Sciences                                                  | Relationship between AMPK-dependent BDNF pathway and KLF15 on fatty acid oxidation in skeletal muscle                  | Dr Chi Bun Chan, School of Biological Sciences                |
| Liu Xinqi           | BSc (4)           | 4    | The role of extracellular adenosine signaling on the immune microenvironment of HCC                           | Prof Jiandong Huang, School of Biomedical Sciences; Dr Carmen C L Wong, Department of Pathology | --                                                                                                                     | --                                                            |
| Mia Md Bayezid      | BSc (4)           | 4    | GEN1 in processing recombination and replication intermediates                                                | Dr Gary Y W Chan, School of Biological Sciences                                                 | GEN1 in processing recombination and replication intermediates                                                         | Dr Gary Y W Chan, School of Biological Sciences               |
| Ouyang Xiangyu      | BSc (4)           | 4    | Localization of the FYVE Domains of Spire1 and Spire2 Proteins at Microirradiation-induced DNA Damage Sites   | Prof Michael S Y Huen, School of Biomedical Sciences                                            | Localization of the FYVE Domains of Spire1 and Spire2 Proteins at Microirradiation-induced DNA Damage Sites            | Prof Michael S Y Huen, School of Biomedical Sciences          |
| Shah Aashana Chetan | BSc (4)           | 4    | Quantifying the Metastatic Propensity of Cancer Cells that Undergo Peritoneal Metastasis as a process         | Prof Alice S T Wong, School of Biological Sciences                                              | Understanding the difference in gene expression that underlies cancers that undergo peritoneal metastasis as a process | Prof Alice S T Wong, School of Biological Sciences            |
| Singhal Kush        | BSc (4)           | 4    | Frieze Patterns arising from Dynkin Diagrams                                                                  | Prof Jianghua Lu, Department of Mathematics                                                     | --                                                                                                                     | --                                                            |
| Siu Tsz Ho *#       | BSc (4)           | 4    | Development of Chemiluminescent Probes for Detecting Reactive Oxygen Species                                  | Prof Dan Yang, Department of Chemistry                                                          | Development of Chemiluminescent Probes for Detecting Reactive Oxygen Species                                           | Prof Dan Yang, Department of Chemistry                        |
| Tan Tixuan          | BSc (4)           | 3    | Edge states in graphene nanoribbon                                                                            | Prof Wang Yao, Department of Physics                                                            | Edge states in graphene nanoribbon                                                                                     | Prof Wang Yao, Department of Physics                          |

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|------------------|---------|---|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Tang Tze Tung    | BSc (4) | 4 | Characterisation of Mitochondrial Proteome Changes during SARS-CoV-2 ORF9b Expression by Rapid Immunopurification | Prof Dong-Yan Jin, School of Biomedical Sciences   | Characterisation of Mitochondrial Proteome Changes during SARS-CoV-2 ORF9b Expression by Rapid Immunopurification                                                                              | Prof Dong-Yan Jin, School of Biomedical Sciences   |
| Wang Zihan       | BSc (4) | 4 | Planar Cell Polarity (PCP) is Unlikely Transduced Through Frizzled-Vangl Interaction                              | Prof Jiandong Huang, School of Biomedical Sciences | Planar Cell Polarity is Unlikely Transduced Through Frizzled Vangl Trans interaction                                                                                                           | Prof Jiandong Huang, School of Biomedical Sciences |
| Wong Kwan Yuen * | BSc (4) | 4 | Investigation of gold complexes as anti-cancer agent                                                              | Prof Chi Ming Che, Department of Chemistry         | --                                                                                                                                                                                             | --                                                 |
| Xiang Jie        | BSc (4) | 4 | Exploring environmental control of photosynthesis capacity between temperate deciduous and evergreen trees        | Dr Jin Wu, School of Biological Sciences           | Quantitative assessments of differential physiological trait acclimations of deciduous vs. evergreen trees across large environmental gradients in the temperate regions through meta-analysis | Dr Jin Wu, School of Biological Sciences           |
| Xu Xinshu        | BSc (4) | 4 | Characterization of sPDZD2-GPR161 interaction in the negative regulation of Hedgehog signaling                    | Dr Kwok Ming Yao, School of Biomedical Sciences    | Characterization of sPDZD2-GPR161 interaction in the negative regulation of Hedgehog signaling                                                                                                 | Dr Kwok Ming Yao, School of Biomedical Sciences    |
| Ying Yui Wang    | BSc (4) | 4 | Fire Weather Indices for Hong Kong and Future Change                                                              | Dr Jed Oliver Kaplan, Department of Earth Sciences | --                                                                                                                                                                                             | --                                                 |
| Zhang Jiahao     | BSc (4) | 4 | Study of physics-informed deep neural networks in solving partial differential equations                          | Dr Zhiwen Zhang, Department of Mathematics         | --                                                                                                                                                                                             | --                                                 |
| Zhang Maoqi      | BSc (4) | 4 | Application of A Machine Learning Framework that accelerates the solution of ODEs and PDEs                        | Dr Guanglian Li, Department of Mathematics         | Comparison of Numerical Methods of Computation of Differential Equations                                                                                                                       | Dr Guanglian Li, Department of Mathematics         |

## 2020-21

| Name                   | Curriculum | Year | Project Title of Project/ Directed Studies Course                                                                                                                  | Supervisor of Project/ Directed Studies Course                                                             | Project Title of Summer Research Internship                                                                                                                        | Internship Supervisor                                                                                 |
|------------------------|------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Chan Alistair Kai Chak | BSc (4)    | 4    | Combination therapy in nanoparticles encapsulating curcumin against Alzheimer's Disease                                                                            | Dr Aviva S F Chow, Department of Pharmacology and Pharmacy; Dr Dong-Yan Jin, School of Biomedical Sciences | --                                                                                                                                                                 | --                                                                                                    |
| Chan Timothy           | BSc (4)    | 3    | Detecting alternative promoter usage in hepatocellular carcinoma and nasopharyngeal carcinoma using 5'-biased sequencing data                                      | Dr Joshua W K Ho, School of Biomedical Sciences                                                            | --                                                                                                                                                                 | --                                                                                                    |
| Cheung Chin Shek       | BSc (4)    | 4    | Methods in the study of intestinal microbiota: in vitro colon model and in vivo samples                                                                            | Dr Hani El-Nezami, School of Biological Sciences                                                           | Optimization and validation of cholesterol and oxysterols measurement in HepG2 cells using LC-MS/MS                                                                | Dr Carlos Gomez Gallego, School of Medicine, University of Eastern Finland                            |
| Du Zhixu               | BSc (4)    | 4    | Sign Language Recognition                                                                                                                                          | Prof Michael K P Ng, Department of Mathematics                                                             | Learning Invariant Information in Machine Learning                                                                                                                 | Prof Kangwook Lee, Department of Electrical and Computer Engineering, University of Wisconsin-Madison |
| Gupta Saumya           | BSc (4)    | 4    | Testing the effect of ocean acidification on the camouflaging behavior of sea urchin <i>Salmacis sphaeroides</i>                                                   | Dr Bayden Russell, School of Biological Sciences                                                           | --                                                                                                                                                                 | --                                                                                                    |
| Kim Sehong             | BSc (4)    | 4    | Unravelling the Effect of Maph-1.3 on ALM Touch Receptor Neurons of <i>Caenorhabditis elegans</i>                                                                  | Dr Chaogu Zheng, School of Biological Sciences                                                             | Homology-based search for microtubule associated proteins in <i>Caenorhabditis elegans</i>                                                                         | Dr Chaogu Zheng, School of Biological Sciences                                                        |
| Lai Wenjing            | BSc (4)    | 4    | Understanding the molecular mechanism of congenital scoliosis                                                                                                      | Dr Bo Gao, School of Biomedical Sciences                                                                   | --                                                                                                                                                                 | --                                                                                                    |
| Li Kam Yun             | BSc (4)    | 4    | Mesoporous chiral metal organic framework (CMOF) for heterogenous asymmetric photocatalyst                                                                         | Dr Jian He, Department of Chemistry                                                                        | Mesoporous chiral metal organic framework (CMOF) for heterogenous asymmetric photocatalyst                                                                         | Dr Jian He, Department of Chemistry                                                                   |
| Li Pak Yi              | BSc (4)    | 4    | Exploring the methods of increasing the provably secure key rate in quantum cryptography                                                                           | Prof Hoi Fung Chau, Department of Physics                                                                  | --                                                                                                                                                                 | --                                                                                                    |
| Lim Hui Yuan           | BSc (4)    | 4    | Modelling Alzheimer's and Parkinson's Disease in <i>C. Elegans</i>                                                                                                 | Dr Chaogu Zheng, School of Biological Sciences                                                             | --                                                                                                                                                                 | --                                                                                                    |
| Lou Yuchen*            | BSc (4)    | 3    | First order algorithms for optimization problems in data science                                                                                                   | Prof Xiaoming Yuan, Department of Mathematics                                                              | First Order Algorithms for Optimization and Zeroth-order Optimization                                                                                              | Prof Wotao Yin, Department of Mathematics, The University of California, Los Angeles                  |
| Szeto Dei Men*         | BSc (4)    | 4    | Investigating the role of DLC1-i1 and the molecular regulation of its expression in embryonic chick spinal motor neurons using CRISPR/Cas9 genome-editing approach | Dr Martin C H Cheung, School of Biomedical Sciences                                                        | Investigating the role of DLC1-i1 and the molecular regulation of its expression in embryonic chick spinal motor neurons using CRISPR/Cas9 genome-editing approach | Dr Martin C H Cheung, School of Biomedical Sciences                                                   |
| Tsang Hiu Yu           | BSc (4)    | 4    | Ectoparasites of bats in Hong Kong and specificity of host-parasite interaction                                                                                    | Dr Simon Y W Sin, School of Biological Sciences                                                            | --                                                                                                                                                                 | --                                                                                                    |
| Yip Ka Hei Anson       | BSc (4)    | 5    | Assessing Functional Connectivity of Urban Green Spaces for Butterflies in Highly Urbanized Landscape                                                              | Dr Timothy C Bonebrake, School of Biological Sciences                                                      | --                                                                                                                                                                 | --                                                                                                    |

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|----------------|-------------------|---|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| Zhang Xiaotian | BSc (4)           | 4 | Identification and Characterization of Vangl2 Interactome Using Proximity-dependent Biotinylation | Dr Bo Gao, School of Biomedical Sciences                             | Identification and Characterization of Vangl2 Interactome Using Proximity-dependent Biotinylation | Dr Bo Gao, School of Biomedical Sciences                             |
| Zhang Zheng    | BSc (4)           | 3 | The impact of COVID-19 epidemic on the conservation status of pangolins                           | Dr Timothy C Bonebrake, School of Biological Sciences                | A theoretical framework for wildlife consumption motivation studies                               | Dr Timothy C Bonebrake, School of Biological Sciences                |
| Zheng Yahuan*# | BSc(ActuarSc) (4) | 4 | Parameter Estimation for Reflected Fractional Ornstein-Uhlenbeck Process                          | Prof Jeff Jianfeng Yao, Department of Statistics & Actuarial Science | On the Critical Behavior of Erdős-Rényi Random Graphs                                             | Prof Jeff Jianfeng Yao, Department of Statistics & Actuarial Science |

#### 2019-20

| Name           | Curriculum        | Year | Project Title of Project/ Directed Studies Course                                                                                                       | Supervisor of Project/ Directed Studies Course                             | Project Title of Summer Research Internship                                                                                    | Internship Supervisor                                                                    |
|----------------|-------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Chiu Pak Wing  | BSc (4)           | 4    | The transcriptional regulation of Irx3 and Irx5 in mouse inner ear                                                                                      | Prof Mai Har Sham, School of Biomedical Sciences                           | --                                                                                                                             | --                                                                                       |
| Kong Wang Yeuk | BSc (4)           | 4    | Asymmetric (4+3) cycloaddition of epoxy enol silane with dienes catalyzed by Chiral Binaphthyl Disulfonic Acid                                          | Prof Pauline Chiu, Department of Chemistry                                 | Asymmetric (4+3) cycloaddition of epoxy enol silane with dienes catalyzed by Chiral Binaphthyl Disulfonic Acid and Derivatives | Prof Pauline Chiu, Department of Chemistry                                               |
| Lam Si Yu      | BSc (4)           | 4    | Determination of Breeding Grounds of the Siberian Rubythroat and Yellow-Breasted Buntings with Stable Isotopes and Geolocator Tracking                  | Dr Timothy C Bonebrake & Dr Caroline Dingle, School of Biological Sciences | --                                                                                                                             | --                                                                                       |
| Liang Shuang   | BSc (4)           | 4    | Algebraic and analytic methods on complex algebraic geometry                                                                                            | Prof Ngai Ming Mok, Department of Mathematics                              | --                                                                                                                             | --                                                                                       |
| Sun Xianlin    | BSc(ActuarSc) (4) | 4    | Bootstrap post-model selection inference under a general framework                                                                                      | Prof Stephen M S Lee, Department of Statistics & Actuarial Science         | --                                                                                                                             | --                                                                                       |
| Tang Xun       | BSc (4)           | 3    | Adaptive numerical methods for long-time integration and model reduction with applications in computing effective diffusivity and Anderson localization | Dr Zhiwen Zhang, Department of Mathematics                                 | Demonstration of generic Quantum controllability under QAOA setting                                                            | Prof Lin Lin, Department of Mathematics, University of California Berkeley               |
| Tsang Kin Ming | BSc (4)           | 4    | Representations of integers by mixed sums of weighted m-gonal numbers and squares                                                                       | Dr Benjamin R Kane, Department of Mathematics                              | --                                                                                                                             | --                                                                                       |
| Wong Yin Pok   | BSc (4)           | 4    | Synthesis of Luminescent Metal Complexes and their Functional Studies for Sensing                                                                       | Prof Vivian W W Yam, Department of Chemistry                               | Coordination chemistry and photophysical characterization of lanthanide complexes                                              | Dr Rebecca Abergel, Department of Nuclear Engineering, University of California Berkeley |
| Xu Hongting    | BSc (4)           | 4    | The Role of ISM1 in hematopoiesis                                                                                                                       | Prof Zhongjun Zhou, School of Biomedical Sciences                          | --                                                                                                                             | --                                                                                       |
| Xu Wan         | BSc (4)           | 4    | Elucidating the Role of SOX10 in Neuroblastoma                                                                                                          | Dr Martin C H Cheung, School of Biomedical Sciences                        | --                                                                                                                             | --                                                                                       |

#### 2018-19

| Name                  | Curriculum | Year | Project Title of Project/ Directed Studies Course                                                   | Supervisor of Project/ Directed Studies Course        | Project Title of Summer Research Internship                                                                                           | Internship Supervisor                                                  |
|-----------------------|------------|------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Gu Jiacheng           | BSc(4)     | 4    | Role of Long Non-coding RNAs in Cancer Stem Cells                                                   | Dr Jiangwen Zhang, School of Biological Sciences      | Role of Phosphorylation of Ybx1 in the Translation Control of Maternal sqt RNA and Nodal Signaling Pathway in Zebrafish Embryogenesis | Prof Karuna Sampath, Warwick Medical School, The University of Warwick |
| Ho Sik Yin            | BSc(4)     | 4    | Use of CombiGEM-CRISPR in screening potential novel drug combinations for liver cancer              | Dr Alan S L Wong, School of Biomedical Sciences       | --                                                                                                                                    | --                                                                     |
| Kwan Hiu Lam Rachel*# | BSc(4)     | 4    | Role of TRPC1-induced $Ca^{2+}$ -signaling in neuromuscular synapse development                     | Dr Chi Wai Lee, School of Biomedical Sciences         | Role of TRPC1-induced $Ca^{2+}$ -signaling in neuromuscular synapse development                                                       | Dr Chi Wai Lee, School of Biomedical Sciences                          |
| Lai Siu Lun Michael   | BSc(4)     | 4    | Using transparent brain to investigate spreading of neurodegeneration in Parkinson's disease        | Dr Raymond C C Chang, School of Biomedical Sciences   | Using neuronal tracing and passive transparent brain to visualize neuronal pathway                                                    | Dr Raymond C C Chang, School of Biomedical Sciences                    |
| Lee Tak Wang Terence  | BSc(4)     | 4    | IAV PB1-F2 cytotoxic sequence mediates NLRP3 inflammasome activation via oxidative stress induction | Prof Dong-Yan Jin, School of Biomedical Sciences      | Influenza A virus PB1-F2 cytotoxic motif promotes self aggregation to elicit NLRP3 dependent IL-1 $\beta$ release                     | Prof Dong-Yan Jin, School of Biomedical Sciences                       |
| Leung Tsz Kin Calvin  | BSc(4)     | 4    | Oviposition preference and thermal tolerance of stag beetles (Family: Lucanidae)                    | Dr Timothy C Bonebrake, School of Biological Sciences | --                                                                                                                                    | --                                                                     |

|                         |        |   |                                                                                                                                                                                                                              |                                                       |                                                                                                                                                                                                                              |                                                                           |
|-------------------------|--------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Leung Yee Man           | BSc(4) | 4 | Chloroplast genomes comparison of mycoheterotrophic <i>Exacum paucisquamum</i> and autotrophic <i>Exacum tetragonum</i>                                                                                                      | Prof Richard Saunders, School of Biological Sciences  | --                                                                                                                                                                                                                           | --                                                                        |
| Shukla Yash Sanjaykumar | BSc(4) | 4 | Autonomously-produced synthetic push-pull motif                                                                                                                                                                              | Dr Julian A Tanner, School of Biomedical Sciences     | Autonomously-produced synthetic push-pull motif                                                                                                                                                                              | Dr Thomas Ouldrige, Department of Bioengineering, Imperial College London |
| Wan Lok Yee             | BSc(4) | 4 | Preparation of recombinant protein of adiponectin in <i>E. coli</i> and testing of its bioactivity in cell lines with adiponectin receptor expression and its potential effects on promoter activation of pituitary hormones | Prof Anderson O L Wong, School of Biological Sciences | Preparation of recombinant protein of adiponectin in <i>E. coli</i> and testing of its bioactivity in cell lines with adiponectin receptor expression and its potential effects on promoter activation of pituitary hormones | Prof Anderson O L Wong, School of Biological Sciences                     |
| Wang Chuwen             | BSc(4) | 4 | Uniruled Projective varieties                                                                                                                                                                                                | Prof Ngai Ming Mok, Department of Mathematics         | --                                                                                                                                                                                                                           | --                                                                        |

#### 2017-18

| Name                 | Curriculum | Year | Project Title of Project/ Directed Studies Course                                                                                                 | Supervisor of Project/ Directed Studies Course              | Project Title of Summer Research Internship                                                                                                                | Internship Supervisor                                                                                      |
|----------------------|------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Chan Chun Ngai       | BSc(4)     | 4    | Holocene climate changes in marginal Asian monsoon regions                                                                                        | Dr Zhonghui Liu, Department of Earth Sciences               | Field investigation of lake status in Inner Mongolia                                                                                                       | Dr Zhonghui Liu, Department of Earth Sciences                                                              |
| Cheung Man Him       | BSc(4)     | 4    | Eliciting the role of Dlc18 in motor neuron development                                                                                           | Dr Martin Cheung, School of Biomedical Sciences             | --                                                                                                                                                         | --                                                                                                         |
| Chu Ka Chi           | BSc(4)     | 4    | Investigation and Validation on Gene Expression During Development of nucleus Pulposus                                                            | Prof Kathryn S E Cheah, School of Biomedical Sciences       | Investigation and Validation on Gene Expression During Development of Nucleus Pulposus - Hox Genes and Cell Surface Markers                                | Prof Kathryn S E Cheah, School of Biomedical Sciences                                                      |
| Ding Anyang          | BSc(4)     | 4    | Palaeobiogeographic Analysis of Coelurosaurian Evolution                                                                                          | Dr Michael D Pittman, Department of Earth Sciences          | --                                                                                                                                                         | --                                                                                                         |
| Ling Yuet Fung       | BSc(4)     | 4    | Upper-ocean stratification in the polar North Atlantic and its impact on deep-water ventilation during past interglacials                         | Dr Benoit Thibodeau, Department of Earth Sciences           | Upper-ocean stratification in the polar North Atlantic and its impact on deep-water ventilation during past interglacials                                  | Dr Benoit Thibodeau, Department of Earth Sciences                                                          |
| Man Pui Hei Marcus*# | BSc(4)     | 4    | Modulation of the cGAS-STING pathway by MERS-CoV                                                                                                  | Prof Dong-Yan Jin, School of Biomedical Sciences            | Modulation of the cGAS-STING pathway by MERS-CoV                                                                                                           | Prof Dong-Yan Jin, School of Biomedical Sciences                                                           |
| Ng John Joson Quimpo | BSc(4)     | 4    | Synthesis of fluorescent chemical probes for detection of superoxide ions                                                                         | Dr Ho Yu Au-Yeung, Department of Chemistry                  | --                                                                                                                                                         | --                                                                                                         |
| Poh Wei Church       | BSc(4)     | 4    | Design (modification), Synthesis, Characterization and Photophysical Study of Phosphorescent Organometallic Complexes                             | Prof Vivian W W Yam, Department of Chemistry                | Probing the Influence of the R-Zn-R Bond Angle in Dialkylzinc Complexes on the Lewis Acidity of the Zinc Metal Centre and Implications for Zinc Activities | Prof Ulrich Fekl, Department of Chemical and Physical Sciences, University of Toronto Mississauga          |
| Wang Jen-chieh       | BSc(4)     | 4    | Studies on the effects of stereochemistry on (4+3) cycloaddition to synthesize perhydroazulenes diastereoselectively                              | Prof Pauline Chiu, Department of Chemistry                  | Studies on the effect of stereochemistry on (4+3) cycloaddition to synthesize perhydroazulenes                                                             | Prof Pauline Chiu, Department of Chemistry                                                                 |
| Wang Jianian         | BSc(4)     | 4    | Discrete-time series analysis on nomadic migration of historical china                                                                            | Dr Guodong Li, Department of Statistics & Actuarial Science | --                                                                                                                                                         | --                                                                                                         |
| Yan Junran           | BSc(4)     | 4    | Role of centromere and kinetochore proteins in anoxia-induced suspended animation and recovery in <i>S. cerevisiae</i>                            | Dr Karen W Y Yuen, School of Biological Sciences            | The role of centromere, kinetochore and cell cycle checkpoint proteins in anoxia-induced suspended animation and recovery in <i>S. cerevisiae</i>          | Dr Karen W Y Yuen, School of Biological Sciences                                                           |
| Zeng Ji              | BSc(4)     | 3    | L2 Estimates of d-bar Operator on Complex Manifolds                                                                                               | Prof Ngaiming Mok, Department of Mathematics                | --                                                                                                                                                         | --                                                                                                         |
| Zhou Ruiyi           | BSc(4)     | 4    | Adapting Scalable Correlated Electronic Structure Theory to Born-Oppenheimer Molecular Dynamics Simulations of Molecular Excited Electronic State | Dr Jun Yang, Department of Chemistry                        | Adapting Scalable Correlated Electronic Structure Theory to Born-Oppenheimer Molecular Dynamics Simulations                                                | Prof Roberto Car, Department of Chemistry, Princeton Institute for the Science and Technology of Materials |

#### 2016-17

| Name             | Curriculum | Year | Project Title of Project/ Directed Studies Course                                                               | Supervisor of Project/ Directed Studies Course                      | Project Title of Summer Research Internship | Internship Supervisor |
|------------------|------------|------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------|-----------------------|
| Ho Julian Xi Wei | BSc(4)     | 5    | Role of miRNA-1 and -499 in maturation of human embryonic stem cell-derived cardiomyocytes in 3D tissue culture | Dr Wendy W Y Wong & Dr Kwok Ming Yao, School of Biomedical Sciences | --                                          | --                    |
| Ni Haozheng      | BSc(4)     | 4    | Bootstrap approximation in time series modeling                                                                 | Dr Guodong Li, Department of Statistics & Actuarial Science         | --                                          | --                    |

|                      |        |   |                                                                                                           |                                                    |                                                                                                                            |                                                                                                     |
|----------------------|--------|---|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Rabbani Mashiat*#    | BSc(4) | 4 | Evaluating Nucleoside Analogs as Potential Anti-Cancer Drugs                                              | Prof Alice S T Wong, School of Biological Sciences | Novel mechanisms for targeting Cancer Stem cells using nucleoside analogues and nanotechnology based drug delivery         | Prof Peng Ling, Department of Chemical Biology, Centre National de la Recherche Scientifique (CNRS) |
| Tse Yuen Cheong      | BSc(4) | 4 | Design and Synthesis of Luminescent Metal Complexes                                                       | Prof Vivian W W Yam, Department of Chemistry       | Design, Synthesis and Photophysical Study of Cyclometallated N <sup>4</sup> C <sup>4</sup> N Alkynylplatinum(II) Complexes | Prof Vivian W W Yam, Department of Chemistry                                                        |
| Wong Thomas Hin Fung | BSc(4) | 4 | The Anticancer components from Hedyotis diffusa                                                           | Prof Chi Ming Che, Department of Chemistry         | --                                                                                                                         | --                                                                                                  |
| Zhang Zhiqian        | BSc(4) | 4 | CRISPR/Cas9 mediated isolation and genomic cloning of EBV strains from clinical EBV-infected cell samples | Prof Dong-Yan Jin, School of Biomedical Sciences   | --                                                                                                                         | --                                                                                                  |

#### 2015-16

| Name                 | Curriculum | Year | Project Title of Project/ Directed Studies Course                                                           | Supervisor of Project/ Directed Studies Course                                                             | Project Title of Summer Research Internship                        | Internship Supervisor                                                                                     |
|----------------------|------------|------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Fan Ruolin*          | BSc(4)     | 4    | Systemic exploration in the regulating network of hypertrophic-chondrocyte-to-osteoblast differentiation    | Prof Kathryn S E Cheah, School of Biomedical Sciences                                                      | --                                                                 | --                                                                                                        |
| Guo Fengyi           | BSc(4)     | 4    | Impacts of Urbanization on Spotted Dove Communication                                                       | Dr Timothy C Bonebrake, School of Biological Sciences & Dr Caroline E Dingle, Department of Earth Sciences | --                                                                 | --                                                                                                        |
| Hassan Ayon Ahmed    | BSc(4)     | 4    | Determining the effect of shear stress on the adhesion of tumor cells in cancer metastasis                  | Prof Alice S T Wong, School of Biological Sciences                                                         | --                                                                 | --                                                                                                        |
| Husain Abdullah      | BSc(4)     | 4    | Screening of G-protein-coupled receptors cDNA library for dimerization with Human Secretin Hormone Receptor | Prof Billy K C Chow, School of Biological Sciences                                                         | --                                                                 | --                                                                                                        |
| Leung Yi Lok Enoch*# | BSc(4)     | 4    | Reconstruction of mass distribution of galaxy cluster(s) via gravitational lensing                          | Dr Jeremy J L Lim, Department of Physics                                                                   | Studying the UV luminosity functions of galaxies at high redshifts | Dr Jeremy J L Lim, Department of Physics                                                                  |
| Liu Yangdongling     | BSc(4)     | 4    | Design, Synthesis and Photophysical Study of Luminescent Metal Complexes                                    | Prof Vivian W W Yam, Department of Chemistry                                                               | --                                                                 | --                                                                                                        |
| Luo Di               | BSc(4)     | 4    | New Time Evolution Methods for Matrix Product States of Tensor Network in Quantum Calculation               | Prof Guanhua Chen, Department of Chemistry & Dr Shizhong Zhang, Department of Physics                      | Investigation on Tensor Network Renormalization Group              | Prof Garnet Kin-Lic Chan, Department of Chemistry, the Chan Group, Princeton University                   |
| Sun Chenyue*         | BSc(4)     | 4    | Visible-light mediated synthesis of dihydrofuran derivatives with ruthenium photoredox catalysts            | Prof Chi Ming Che, Department of Chemistry                                                                 | Red-light induced carbon disulfide release from a cobalt complex   | Prof Peter C Ford, Department of Chemistry and Biochemistry, University of California, Santa Barbara, USA |
| Wen Boya*            | BSc(4)     | 4    | Fermat-type functional equations and binary form                                                            | Prof Tuen Wai Ng, Department of Mathematics                                                                | --                                                                 | --                                                                                                        |
| Wu Teng              | BSc(3)     | 4    | Exploring properties of Bayesian & Frequentist hybrid confidence interval                                   | Prof Stephen M S Lee, Department of Statistics & Actuarial Science                                         | --                                                                 | --                                                                                                        |
| Xiong Lingyun*       | BSc(4)     | 4    | Functional Role of hnRNP A1 on FOXM1 alternative splicing                                                   | Dr Kin Hang Kok, School of Biomedical Sciences                                                             | --                                                                 | --                                                                                                        |
| Zhang Yongquan       | BSc(4)     | 4    | Complex Manifolds                                                                                           | Prof Ngaiming Mok, Department of Mathematics                                                               | From Holomorphic Functions to Complex Manifolds                    | Prof Ngaiming Mok, Department of Mathematics                                                              |

#### 2014-15

| Name           | Curriculum | Year | Project Title of Project/ Directed Studies Course                                       | Supervisor of Project/ Directed Studies Course                 | Project Title of Summer Research Internship                                     | Internship Supervisor                             |
|----------------|------------|------|-----------------------------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------|
| Cai Weixin*    | BSc(3)     | 3    | Buffered Autoregressive Model with Exogenous Variables                                  | Dr Philip L H Yu, Department of Statistics & Actuarial Science | Semiparametric Heteroscedastic Modeling for Seasonal Time Series                | Dr Prabir Burman, University of California, Davis |
| Chan Ho Wang*  | BSc(3)     | 3    | Anammox Bacteria in Animal System                                                       | Dr Jidong Gu, School of Biological Sciences                    | Molecular Diagnosis of Anammox Bacteria                                         | Dr Jidong Gu, School of Biological Sciences       |
| Chan Hok Fung  | BSc(3)     | 5    | Physiologically - relevant doses of UVA exposure alters human skin keratinocytes growth | Dr Jetty C Y Lee, School of Biological Sciences                | --                                                                              | --                                                |
| Cheng Tsz Fung | BSc(3)     | 3    | Roles of BART microRNAs in Epstein-Barr virus-induced epithelial transformation         | Prof Dong-Yan Jin, Department of Biochemistry                  | Roles of BART microRNAs in Epstein-Barr virus-induced epithelial transformation | Prof Dong-Yan Jin, Department of Biochemistry     |

**2013-14**

| Name         | Curriculum       | Year | Project Title of Project/ Directed Studies Course                | Supervisor of Project/ Directed Studies Course            | Project Title of Summer Research Internship                                                                            | Internship Supervisor                                    |
|--------------|------------------|------|------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Li Yu        | BSc(3)           | 2    | Complex Differential Geometry                                    | Prof N Mok, Department of Mathematics                     | --                                                                                                                     | --                                                       |
| Pan Wenqi    | BSc(3)           | 2    | The role of Suppressor of fused in mouse hindbrain development   | Dr M H Shum, Department of Biochemistry                   | The role of Suppressor of fused in the formation of mouse cranial facial skeleton and outflow tract of embryonic heart | Prof C C Hui, University of Toronto                      |
| Sun Lianyi   | BSc(ActuarSc)(3) | 3    | Analysis of large data sets: new tools from random matrix theory | Dr J F Yao, Department of Statistics & Actuarial Science  | --                                                                                                                     | --                                                       |
| Wong Mo Dick | BSc(ActuarSc)(3) | 2    | Markov chains on a continuous state space                        | Dr J F Yao, Department of Statistics & Actuarial Science  | Particle methods with financial applications                                                                           | Dr P Del Moral, INRIA-Bordeaux-Sud-Ouest Research Centre |
| Yang Shihao* | BSc(ActuarSc)(3) | 2    | Valuing contingent options: A discounted density approach        | Dr H L Yang, Department of Statistics & Actuarial Science | --                                                                                                                     | --                                                       |

**2012-13**

| Name               | Curriculum       | Year | Project Title of Project/ Directed Studies Course                                                                                   | Supervisor of Project/ Directed Studies Course                                      | Project Title of Summer Research Internship                                                                                                 | Internship Supervisor                                  |
|--------------------|------------------|------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Chai Wai Yeeng     | BSc(3)           | 2    | Do endocrine disrupting chemicals affect cancer?                                                                                    | Dr A S T Wong, School of Biological Sciences                                        | --                                                                                                                                          | --                                                     |
| Choi Chek Hin      | BSc(ActuarSc)(3) | 3    | Introduction to the gerber-shiu function in ruin theory                                                                             | Dr E K C Cheung, Department of Statistics & Actuarial Science                       | Optimal portfolio with correlation constraints                                                                                              | Dr C Bernard, University of Waterloo                   |
| Chow Tai Cheong*   | BSc(3)           | 2    | Pax6 and neurodegeneration of Parkinson's disease                                                                                   | Dr Y Q Song, Department of Biochemistry                                             | Neurodegeneration of parkinson's disease: the role of Pax6 in MPP+-induced apoptosis Parkinson's disease in vitro model                     | Dr Y Q Song, Department of Biochemistry                |
| Lai Cheuk Hei      | BSc(3)           | 1    | Pathogenesis of influenza viruses                                                                                                   | Dr Chan Wan Yi, Department of Pathology<br>Dr Chan Chi Wai, School of Public Health | --                                                                                                                                          | --                                                     |
| Lam Chun Ming      | BSc(3)           | 2    | Light controllable kinesin                                                                                                          | Dr J D Huang, Department of Biochemistry                                            | Meiotic spo11 recombination initiation complex in zea mays analysis using yeast two-hybrid system – cloning of spo11-1A, spo11-1B, and prd2 | Dr Arnard Ronceret, University of California, Berkeley |
| Lau Wing Yan       | BSc(3)           | 2    | Molecular characterization of puerarin-protein interactions by proteomics and domain mapping                                        | Dr J Rong, School of Chinese Medicine                                               | Isolation of puerarin binding protein by biotin-streptavidin system                                                                         | Dr J Rong, School of Chinese Medicine                  |
| Li Yu Ting Stephen | BSc(3)           | 2    | The role of cell-cell junction proteins and actin regulatory proteins on germ cell migration and development during spermatogenesis | Prof W W M Lee, School of Biological Sciences                                       | Unraveling the role of actin regulatory proteins on cytoskeleton during spermatogenesis                                                     | Dr C Y Cheng, Rockefeller University                   |
| Lin Tsen-yuan      | BSc(3)           | 2    | Analysing Fermi's data                                                                                                              | Prof K S Cheng, Department of Physics                                               | --                                                                                                                                          | --                                                     |
| Ng Ngai Fung*      | BSc(3)           | 2    | Riemann surfaces and complex manifolds                                                                                              | Prof N Mok, Department of Mathematics                                               | Studies on kahler manifolds                                                                                                                 | Prof N Mok, Department of Mathematics                  |
| Peng Jun           | BSc(3)           | 1    | Calculus of variation                                                                                                               | Prof W S Cheung, Department of Mathematics                                          | --                                                                                                                                          | --                                                     |
| Shen Keren         | BSc(3)           | 2    | The generalization of Gibbard-Satterthwaite theorem                                                                                 | Dr T W Ng, Department of Mathematics                                                | One candidate voting with a quorum                                                                                                          | Dr T W Ng, Department of Mathematics                   |
| Song Yifan         | BSc(3)           | 2    | Data analysis for Fermi Satellite                                                                                                   | Prof K S Cheng, Department of Physics                                               | --                                                                                                                                          | --                                                     |
| Tang Yunfan        | BSc(ActuarSc)(3) | 2    | Option pricing under regime switching models                                                                                        | Prof H L Yang, Department of Statistics & Actuarial Science                         | --                                                                                                                                          | --                                                     |



|              |                  |   |                                                                                                    |                                                             |                                                                                                                                         |                                                             |
|--------------|------------------|---|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Tse Man Nok  | BSc(3)           | 2 | The roles of Lmx1a gene in regulating Irx3/5 genes during inner ear development                    | Dr M H Sham, Department of Biochemistry                     | The roles of Lmx1a in regulating Irx3 and Irx5 genes in inner ear development                                                           | Dr M H Sham, Department of Biochemistry                     |
| Wan Ho Chi   | BSc(ActuarSc)(3) | 2 | Dependence structures in multiple life insurances and annuities                                    | Dr K C Cheung, Department of Statistics & Actuarial Science | A study in optimal reinsurance                                                                                                          | Dr K C Cheung, Department of Statistics & Actuarial Science |
| Wong Kin Lam | BSc(3)           | 2 | Modulation of secretin and secretin receptor gene regulations by NFAT5 in mouse hypothalamic cells | Prof K C Chow, School of Biological Sciences                | The modulation of secretin receptor expression by hyperosmotic stress in mouse hypothalamic cells                                       | Prof K C Chow, School of Biological Sciences                |
| Wu Qihang*   | BSc(3)           | 2 | Tectonic evolution of the Chinese Altai                                                            | Prof M Sun, Department of Earth Sciences                    | A detailed structural study of Qiongzhusi Region, China Altai: multiphase deformation and modification for terrane subdivision proposed | Prof M Sun, Department of Earth Sciences                    |
| Zheng Yao*   | BSc(ActuarSc)(3) | 3 | Applications of nonlinear time series models                                                       | Prof W K Li, Department of Statistics & Actuarial Science   | Applications of nonlinear time series models: fitting threshold models to veilleux's predator series                                    | Prof W K Li, Department of Statistics & Actuarial Science   |

\*Excellence in Poster Presentation

#Best Presenter